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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,961	09/26/2003	Glenn J. Leedy	ELM-2 CONT. 4	9439
1473	7590	03/28/2006	EXAMINER	
FISH & NEAVE IP GROUP ROPES & GRAY LLP 1251 AVENUE OF THE AMERICAS FL C3 NEW YORK, NY 10020-1105			LEWIS, MONICA	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,961

Applicant(s)

LEEDY, GLENN J.

Examiner

Monica Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 88-128 is/are pending in the application.
- 4a) Of the above claim(s) 89-94, 96-105 and 115 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 88, 95, 106-114 and 116-128 is/are rejected.
- 7) ☒ Claim(s) 110-124 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/05; 12/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed December 23, 2005.

Information Disclosure Statement

2. The information disclosure statement filed 12/23/05 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 88 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,563,224. Although the conflicting claims are not identical, they are not patentably distinct from each other.

In regards to claim 88, Leedy discloses the following:

- a) a first substrate (See Claim 1);
- b) a second substrate bonded to the first substrate (See Claim 1); and
- c) conductive paths formed between the first substrate and the second substrate, wherein the second substrate is a thinned substrate having circuitry formed thereon (See Claim 1).

Note: The differences between Applicant's claim 88 and Leedy's claim 1 are as follows:

Applicant's claim 88

- a) An integrated circuit structure comprising:

Leedy's claim 1

- a) An integrated **memory** circuit structure comprising:

Applicant's claim 88

- a) conductive paths **formed** between

Leedy's claim 1

- a) conductive paths between.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 117 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no disclosure of conductive paths that are in physical contact.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 88, 95, 116, 118 and 119 are being rejected under 35 U.S.C. 102(b) as being anticipated by Faris (U.S. Patent No. 5,786,629).

In regards to claim 88, Faris discloses the following:

- a) a first substrate (7 and 10) (For Example: See Figure 4);
- b) a second substrate (7 and 10) bonded (17) to the first substrate (For Example: See Figure 4); and
- c) conductive paths between the first substrate and the second substrate, wherein the second substrate is a thinned substrate having circuitry formed thereon (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17, Column 7 Lines 45-48).

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In regards to claim 95, Faris discloses the following:

a) at least one additional thinned substrate having circuitry formed thereon (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17, Column 7 Lines 45-48);

b) a first of said at least one additional thinned substrate being bonded to the second substrate and any additional thinned substrates being bonded to the directly adjacent thinned substrates (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17 and Column 12 Lines 5-8); and

c) conductive paths formed between said first of said at least one additional thinned substrate and at least one of said first and second substrates and also between each additional thinned substrate and at least one of said substrates of the integrated structure (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13 and Column 6 Lines 12-17).

In regards to claim 116, Faris discloses the following:

a) a first substrate having topside and backside surfaces (For Example: See Figure 4);

b) a second substrate having topside and backside surfaces bonded to the first substrate (For Example: See Figure 4); and

c) conductive paths formed on selected ones of said surfaces of said substrates, so as to form electrical connections between the first substrate and the second substrate, wherein the second substrate is a thinned substrate having circuitry formed thereon (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17, Column 7 Lines 45-48).

In regards to claim 118, Faris discloses the following:

a) a first substrate (For Example: See Figure 4);

b) a second substrate bonded to the first substrate wherein said substrates having bonded surfaces and opposite surfaces (For Example: See Figure 4); and

c) conductive paths formed between the first and second substrate from selected ones of said surfaces of said substrates, wherein the second substrate is a thinned substrate having circuitry formed thereon (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17, Column 7 Lines 45-48).

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In regards to claim 119, Faris discloses the following:

a) at least one additional thinned substrate having circuitry formed thereon (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17, Column 7 Lines 45-48);

b) a first of said at least one additional thinned substrate being bonded to the second substrate and any additional thinned substrates being bonded to the directly adjacent thinned substrates (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13, Column 6 Lines 12-17 and Column 12 Lines 5-8); and

c) conductive paths formed between said first of said at least one additional thinned substrate and at least one of said first and second substrates and also between each additional thinned substrate and at least one of said substrates of the integrated circuit structure (For Example: See Figure 4, Column 4 Lines 57-67, Column 5 Lines 8-13 and Column 6 Lines 12-17).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 106-108, 111-114, 120-122 and 125-128 are rejected under 35 U.S.C. 103(a) as obvious over Faris (U.S. Patent No. 5,786,629) in view of Sakui et al. (U.S. Patent No. 5,615,163).

In regards to claims 106 and 120, Faris discloses the following:

a) at least one controller substrate having logic circuitry formed thereon (For Example: See Column 3 Lines 60-63, Column 7 Lines 8-13 and Column 12 Lines 5-10); and

b) at least one memory substrate having memory circuitry formed thereon (For Example: See Column 3 Lines 60-63, Column 7 Lines 8-13 and Column 12 Lines 5-10).

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In regards to claim 106, Faris fails to disclose the following:

a) a plurality of data lines and a plurality of gate lines on each memory substrate and an array of memory cells on each memory substrate each memory cell stores a data value and has circuitry that couples the data value to one of the plurality of data lines in response to selecting one of the plurality of gate lines.

However, Sakui et al. ("Sakui") discloses a plurality of data lines and a plurality of gate lines on each memory substrate and an array of memory cells on each memory substrate wherein memory cells store a data value and have circuitry that couple the data value to one of the plurality of data lines in response to selecting one of the plurality of gate lines (For Example: See Figure 10, Column 5 Lines 20-67 and Column 6 Lines 1-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include a plurality of data lines and a plurality of gate lines on each memory substrate and an array of memory cells on each memory substrate wherein memory cells store a data value and have circuitry that couples the data value to one of the plurality of data lines in response to selecting one of the plurality of gate lines as disclosed in Sakui because it aids in providing a means for saving the efficiency of a defective bit (For Example: See Column 5 Lines 11-18 and Column 6 Lines 40-63).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

b) a gate line selection circuit that enables a gate line for a memory operation, wherein the gate line selection circuit has programmable gates to receive address assignments for at least one gate line of the plurality of gate lines and wherein the address assignments for determining which of the plurality of gate lines is selected for each programmed address assignment.

However, Sakui discloses a gate line selection circuit (22, 23, 24 and 22') that enables a gate line for a memory operation, wherein the gate line selection circuit has programmable gates to receive address assignments for at least one gate line of the plurality of gate lines and wherein the address assignments for determining which of the plurality of gate lines is selected for each programmed address assignment (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include a gate line selection circuit that enables a gate line for a memory operation, wherein the gate line selection circuit has programmable gates to receive address assignments for at least one gate line of the plurality of gate lines and wherein the address assignments for determining which of the plurality of gate lines is selected for each programmed address assignment as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

c) controller substrate logic that determines if one memory cell of the array of memory cells is defective and alters the address assignments of the plurality of gate lines to remove references to the gate line that causes the defective memory cell to couple a data value to one of the plurality of data lines.

However, Sakui discloses controller substrate logic that determines if one memory cell of the array of memory cells is defective and alters the address assignments of the plurality of gate lines to remove references to the gate line that causes the defective memory cell to couple a data value to one of the plurality of data lines (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include controller

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substrate logic that determines if one memory cell of the array of memory cells is defective and alters the address assignments of the plurality of gate lines to remove references to the gate line that causes the defective memory cell to couple a data value to one of the plurality of data lines as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

In regards to claims 107 and 121, Faris fails to disclose the following:

a) the controller substrate logic tests the array of memory cells periodically to determine if one of the array of memory cells is defective and removes references in the address assignments to gate lines that cause detected defective memory cells to couple data values to the plurality of data lines.

However, Sakui discloses that the controller substrate logic tests the array of memory cells periodically to determine if one of the array of memory cells is defective and removes references in the address assignments to gate lines that cause detected defective memory cells to couple data values to the plurality of data lines (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include that the controller substrate logic tests the array of memory cells periodically to determine if one of the array of memory cells is defective and removes references in the address assignments to gate lines that cause detected defective memory cells to couple data values to the plurality of data lines as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

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Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

In regards to claims 108 and 122, Faris fails to disclose the following:

a) programmable logic to prevent the use of data values from the plurality of data lines when gate lines cause detected defective memory cells to couple data values to the plurality of data lines.

However, Sakui discloses programmable logic to prevent the use of data values from the plurality of data lines when gate lines cause detected defective memory cells to couple data values to the plurality of data lines (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include programmable logic to prevent the use of data values from the plurality of data lines when gate lines cause detected defective memory cells to couple data values to the plurality of data lines as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

In regards to claims 111 and 125, Faris fails to disclose the following:

a) logic circuitry of the at least one controller substrate performs functional testing of a substantial portion of the array of memory cells.

However, Sakui discloses logic circuitry of the at least one controller substrate that performs functional testing of a substantial portion of the array of memory cells (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include logic circuitry of the at least one controller substrate that performs functional testing of a

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substantial portion of the array of memory cells as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

In regards to claims 112 and 126, Faris fails to disclose the following:

a) the controller substrate logic is further configured to: prevent the use of at least one defective gate line and replace references to memory cells addressed using the defective gate line with references to spare memory cells addressed using a spare gate line.

However, Sakui discloses that the controller substrate logic is further configured to prevent the use of at least one defective gate line and replace references to memory cells addressed using the defective gate line with references to spare memory cells addressed using a spare gate line (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include that the controller substrate logic is further configured to prevent the use of at least one defective gate line and replace references to memory cells addressed using the defective gate line with references to spare memory cells addressed using a spare gate line as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

In regards to claims 113 and 127, Faris fails to disclose the following:

a) the controller substrate logic is further configured to prevent the use of at least one defective gate line.

However, Sakui discloses that the controller substrate logic is further configured to prevent the use of at least one defective gate line (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include that the controller substrate logic is further configured to prevent the use of at least one defective gate line as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

In regards to claims 114 and 128, Faris fails to disclose the following:

a) the logic circuitry of the at least one controller substrate performs all functional testing of the array of memory cells of the at least one memory substrate.

However, Sakui discloses that the logic circuitry of the at least one controller substrate performs all functional testing of the array of memory cells of the at least one memory substrate (For Example: See Figure 10 and Brief Summary Text). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include that the logic circuitry of the at least one controller substrate performs all functional testing of the array of memory cells of the at least one memory substrate as disclosed in Sakui because it aids in providing a means for saving a defective bit (For Example: See Column 6 Lines 20-50).

Additionally, since Faris and Sakui are both from the same field of endeavor, the purpose disclosed by Sakui would have been recognized in the pertinent art of Faris.

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11. Claims 109 and 123 are rejected under 35 U.S.C. 103(a) as obvious over Faris (U.S. Patent No. 5,786,629) in view of Daberko (U.S. Patent No. 5,787,445).

In regards to claims 109 and 123, Faris fails to disclose the following:

a) the array of memory cells are arranged within physical space in a physical order and are arranged within an address space in a logical order and wherein the physical order of at least one memory cell is different than the logical order of the at least one memory cell.

However, Daberko discloses that the array of memory cells are arranged within physical space in a physical order and are arranged within an address space in a logical order and wherein the physical order of at least one memory cell is different than the logical order of the at least one memory cell (For Example: See Abstract, Column 3 Lines 66 and 67, Column 4 Lines 1-11, Column 5 Lines 63-67 and Column 6 Lines 1-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Daberko to include that an array of memory cells are arranged within physical space in a physical order and are arranged within an address space in a logical order and wherein the physical order of at least one memory cell is different than the logical order of the at least one memory cell as disclosed in Daberko because it aids in providing direct manipulation of data segments (For Example: See Column 3 Lines 60-64).

Additionally, since Faris and Daberko are both from the same field of endeavor, the purpose disclosed by Daberko would have been recognized in the pertinent art of Faris.

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12. Claim 117 is rejected under 35 U.S.C. 103(a) as obvious over Faris (U.S. Patent No. 5,786,629) in view of Pamler et al. (U.S. Patent No. 5,626,279).

In regards to claim 117, Faris fails to disclose the following:

a) selected ones of said conductive paths on one surface of said first substrate are in physical and thus electrical contact with selected ones of the conductive paths on one surface of said second substrate so as to form said electrical connection.

However, Pamler et al. ("Pamler") discloses conductive paths (18) on one surface of said first substrate (11) that are in physical and thus electrical contact with conductive paths (28) on one surface of the second substrate (21) so as to form an electrical connection (For Example: See Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Faris to include conductive paths on one surface of the first substrate that are in physical and thus electrical contact with conductive paths on one surface of the second substrate so as to form an electrical connection as disclosed in Pamler because it aids in providing a connection among the substrates (For Example: See Abstract).

Additionally, since Faris and Pamler are both from the same field of endeavor, the purpose disclosed by Pamler would have been recognized in the pertinent art of Faris.

Allowable Subject Matter

13. Claims 110 and 124 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed 12/23/05 have been fully considered but they are not persuasive. First, Applicant argues that "Faris is silent on forming connections between substrates and teaches away through Faris' incorporation of passivation layer 16." However, Faris discloses that each fillo leaf (2) supports a plurality of pairs of electrically or light conductive lines (For Example: See Column 4 Lines 56-65). Therefore, there are a plurality of "connections between the substrates."

Finally, Applicant argues that the double patenting rejection should be withdrawn since a "memory circuit having a thinned substrate is patentably distinct from an integrated circuit." However, the double patenting rejection will remain because the claims are not patentably distinct from each other.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular and after final communications.

ML
March 20, 2006



Mary Wilczewski
Primary Examiner